

Toyoaki Eguchi

List of Publications by Year in descending order

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docs citations

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1768
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#	ARTICLE	IF	CITATIONS
1	Al ₁₃ ⁺ and B@Al ₁₂ ⁺ superatoms on a molecularly decorated substrate. <i>Nature Communications</i> , 2022, 13, 1336.	12.8	13
2	Molecularly Designed Cluster-Surface Interaction for Halogen-like and Alkali-like Metal-Encapsulating Silicon Cage Superatoms on n- and p-Type Organic Substrates. <i>Journal of Physical Chemistry C</i> , 2022, 126, 10889-10899.	3.1	5
3	Confined Hot Electron Relaxation at the Molecular Heterointerface of the Size-Selected Plasmonic Noble Metal Nanocluster and Layered C ₆₀ . <i>ACS Nano</i> , 2021, 15, 1199-1209.	14.6	17
4	Vibrational Spectra of Thiolate-Protected Gold Nanocluster with Infrared Reflection Absorption Spectroscopy: Size- and Temperature-Dependent Ordering Behavior of Organic Monolayer. <i>Journal of Physical Chemistry C</i> , 2020, 124, 363-371.	3.1	4
5	Morphological evolution of Ag nanoclusters grown on hydrogen-terminated Si(111)-(1×1) surface: Appearance of quantum size effect at room-temperature. <i>Surface Science</i> , 2019, 690, 121483.	1.9	2
6	Atomistic investigation on the initial stage of growth and interface formation of Fe on H-terminated Si(111)-(1×1) surface. <i>Surface Science</i> , 2019, 686, 52-57.	1.9	4
7	Size-Effect on Electrochemical Hydrogen Evolution Reaction by Single-Size Platinum Nanocluster Catalysts Immobilized on Strontium Titanate. <i>Topics in Catalysis</i> , 2018, 61, 126-135.	2.8	22
8	Synthesis and Characterization of Metal-Encapsulating Si ₁₆ Cage Superatoms. <i>Accounts of Chemical Research</i> , 2018, 51, 1735-1745.	15.6	63
9	Liquid-phase catalysis by single-size palladium nanoclusters supported on strontium titanate: size-specific catalysts for Suzuki-Miyaura coupling. <i>Catalysis Science and Technology</i> , 2018, 8, 5827-5834.	4.1	6
10	Formation of Highly Ordered Semiconducting Anthracene Monolayer Rigidly Connected to Insulating Alkanethiolate Thin Film. <i>Journal of Physical Chemistry C</i> , 2018, 122, 26080-26087.	3.1	2
11	Photoexcited State Confinement in Two-Dimensional Crystalline Anthracene Monolayer at Room Temperature. <i>ACS Nano</i> , 2017, 11, 4307-4314.	14.6	17
12	Highly Ordered Self-Assembled Monolayers of Carboxy- and Ester-Terminated Alkanethiols on Au(111): Infrared Absorption and Hyperthermal-Deposition Experiments with Cr(benzene) ₂ Ions. <i>Journal of Physical Chemistry C</i> , 2017, 121, 6736-6747.	3.1	6
13	Effects of the deposition rate on growth modes of Ag islands on the hydrogen-terminated Si(111)-(1×1) surface: The role of surface energy and quantum size effect. <i>Journal of Applied Physics</i> , 2017, 122, 095303.	2.5	3
14	Photoexcited Electron-transfer Properties of C ₆₀ Film on Graphite and on Au(111) Interfaces Studied by Two-photon Photoemission Spectroscopy. <i>Chemistry Letters</i> , 2017, 46, 1528-1531.	1.3	9
15	Fabrication and Characterization of Floating Memory Devices Based on Thiolate-Protected Gold Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10638-10644.	3.1	11
16	Energy Level Alignment of Organic Molecules with Chemically Modified Alkanethiolate Self-Assembled Monolayers. <i>Journal of Physical Chemistry C</i> , 2017, 121, 27399-27405.	3.1	4
17	Imaging and spectromicroscopy of photocarrier electron dynamics in C ₆₀ fullerene thin films. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	13
18	Charge Transfer Complexation of Ta-Encapsulating Ta@Si ₁₆ Superatom with C ₆₀ . <i>Journal of Physical Chemistry C</i> , 2016, 120, 15265-15271.	3.1	34

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19	Direct observation of photocarrier electron dynamics in C60 films on graphite by time-resolved two-photon photoemission. <i>Scientific Reports</i> , 2016, 6, 35853.	3.3	25
20	Heterodimerization via the Covalent Bonding of Ta@Si ₁₆ Nanoclusters and C ₆₀ Molecules. <i>Journal of Physical Chemistry C</i> , 2015, 119, 10962-10968.	3.1	31
21	Chemical Characterization of an Alkali-Like Superatom Consisting of a Ta-Encapsulating Si ₁₆ Cage. <i>Journal of the American Chemical Society</i> , 2015, 137, 14015-14018.	13.7	59
22	Excitation and Relaxation Dynamics of Two-Dimensional Photoexcited Electrons on Alkanethiolate Self-Assembled Monolayers. <i>Journal of Physical Chemistry C</i> , 2015, 119, 22945-22953.	3.1	11
23	Formation of a superatom monolayer using gas-phase-synthesized Ta@Si ₁₆ nanocluster ions. <i>Nanoscale</i> , 2014, 6, 14702-14707.	5.6	61
24	Electronic states of titanyl phthalocyanine films on alkanethiolate self-assembled monolayers probed by two-photon photoemission. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2014, 195, 272-277.	1.7	1
25	Probing of an Adsorbate-Specific Excited State on an Organic Insulating Surface by Two-Photon Photoemission Spectroscopy. <i>Journal of the American Chemical Society</i> , 2014, 136, 1825-1831.	13.7	11
26	Formation and Control of Ultrasharp Metal/Molecule Interfaces by Controlled Immobilization of Size-Selected Metal Nanoclusters onto Organic Molecular Films. <i>Advanced Functional Materials</i> , 2014, 24, 1202-1210.	14.9	14
27	Electronic States and Excited Electron Dynamics for Alkanethiolate SAM. <i>Hyomen Kagaku</i> , 2014, 35, 432-437.	0.0	0
28	Excited electron dynamics at ferrocene-terminated self-assembled monolayers on Au(111): Lengthened lifetime of image potential state. <i>Chemical Physics Letters</i> , 2013, 561-562, 131-136.	2.6	9
29	Size and Structure Dependence of Electronic States in Thiolate-Protected Gold Nanoclusters of Au ₂₅ (SR) ₁₈ , Au ₃₈ (SR) ₂₄ , and Au ₁₄₄ (SR) ₆₀ . <i>Journal of Physical Chemistry C</i> , 2013, 117, 3674-3679.	3.1	53
30	Imaging and Characterizing Long-Range Surface Plasmon Polaritons Propagating in a Submillimeter Scale by Two-Color Two-Photon Photoelectron Emission Microscopy. <i>Plasmonics</i> , 2013, 8, 1411-1415.	3.4	22
31	Trapping and squeezing of vortices in voids directly observed by scanning tunneling microscopy and spectroscopy. <i>Physical Review B</i> , 2013, 87, .	3.2	14
32	Probing buried organic-organic and metal-organic heterointerfaces by hard x-ray photoelectron spectroscopy. <i>Applied Physics Letters</i> , 2012, 101, 221603.	3.3	5
33	Molecular-Scale and Wide-Energy-Range Tunneling Spectroscopy on Self-Assembled Monolayers of Alkanethiol Molecules. <i>ACS Nano</i> , 2012, 6, 8728-8734.	14.6	33
34	Charge Separation at the Molecular Monolayer Surface: Observation and Control of the Dynamics. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 981-985.	4.6	27
35	Observation of Vortex Clustering in Nano-Size Superconducting Pb Island Structures by Low-Temperature Scanning Tunneling Microscopy/Spectroscopy. <i>Journal of Superconductivity and Novel Magnetism</i> , 2012, 25, 1375-1378.	1.8	7
36	Comparison of force sensors for atomic force microscopy based on quartz tuning forks and length-extensional resonators. <i>Physical Review B</i> , 2011, 84, .	3.2	94

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37	Metallic Transport in a Monatomic Layer of In on a Silicon Surface. <i>Physical Review Letters</i> , 2011, 106, 116802.	7.8	56
38	Self-Assembly of TBrPP-Co Molecules on an Ag/Si(111) Surface Studied by Scanning Tunneling Microscopy. <i>Chinese Physics Letters</i> , 2010, 27, 026801.	3.3	3
39	Tip-induced excitation of a single vortex in nano-size superconductors using scanning tunneling microscopy. <i>Nanotechnology</i> , 2010, 21, 465704.	2.6	5
40	Local Excitation of Ferromagnetic Resonance and Its Spatially Resolved Detection With an Open-Ended Radio-Frequency Probe. <i>IEEE Magnetics Letters</i> , 2010, 1, 3500104-3500104.	1.1	13
41	Scanning Tunneling Microscopy Assisted by Synchrotron Radiation Light for High-resolution Element Specific Imaging. <i>Hyomen Kagaku</i> , 2010, 31, 452-458.	0.0	0
42	Direct evidence of the contribution of surface states to the Kondo resonance. <i>Physical Review B</i> , 2009, 80, .	3.2	19
43	Nanoscale Chemical Imaging by Scanning Tunneling Microscopy Assisted by Synchrotron Radiation. <i>Physical Review Letters</i> , 2009, 102, 105503.	7.8	41
44	Initial Adsorption and Kondo Resonance of 5,10,15,20-Tetrakis(4-bromophenyl)porphyrinâ€“Co Molecules on Ag/Si(111) Surface Studied by Low-Temperature Scanning Tunneling Microscopy/Spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 08JB01.	1.5	3
45	Pressure dependence of Meissner effect in films of ropes of boron-doped carbon nanotubes. <i>Superlattices and Microstructures</i> , 2009, 46, 333-339.	3.1	2
46	Observation of the screened potential and the Friedel oscillation by low-temperature scanning tunneling microscopy/spectroscopy. <i>Applied Surface Science</i> , 2009, 256, 469-474.	6.1	8
47	Meissner effect in films of ropes of boron-doped single-walled carbon nanotubes; Correlation with applied pressure and boron-doped multi-walled nanotubes. <i>Journal of Physics: Conference Series</i> , 2009, 153, 012070.	0.4	1
48	Nanoscale lithography with frequency-modulation atomic force microscopy. <i>Review of Scientific Instruments</i> , 2008, 79, 123706.	1.3	9
49	Adsorption, manipulation and self-assembling of TBrPP-Co molecules on a Ag/Si(111) surface by scanning tunnelling microscopy. <i>Nanotechnology</i> , 2008, 19, 465707.	2.6	13
50	Superconducting Pb Island Nanostructures Studied by Scanning Tunneling Microscopy and Spectroscopy. <i>Physical Review Letters</i> , 2008, 101, 167001.	7.8	102
51	Atomically resolved imaging by low-temperature frequency-modulation atomic force microscopy using a quartz length-extension resonator. <i>Review of Scientific Instruments</i> , 2008, 79, 033703.	1.3	41
52	Improvement of a dynamic scanning force microscope for highest resolution imaging in ultrahigh vacuum. <i>Review of Scientific Instruments</i> , 2008, 79, 083701.	1.3	24
53	Size-Dependent Superconductivity of Pb Islands under Magnetic Fields Studied by Low-Temperature Scanning Tunneling Microscopy/Spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2007, 46, L880-L882.	1.5	5
54	Functional Probes for Scanning Probe Microscopy. <i>Journal of Physics: Conference Series</i> , 2007, 61, 22-25.	0.4	5

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55	Real-Space Observation of Screened Potential and Friedel Oscillation by Scanning Tunneling Spectroscopy. Journal of Physics: Conference Series, 2007, 61, 399-403.	0.4	10
56	Electrostatic Potential Screened by a Two-Dimensional Electron System: A Real-Space Observation by Scanning-Tunneling Spectroscopy. Physical Review Letters, 2006, 96, 016801.	7.8	55
57	Element specific imaging by scanning tunneling microscopy combined with synchrotron radiation light. Applied Physics Letters, 2006, 89, 243119.	3.3	34
58	Superconductivity of nanometer-size Pb islands studied by low-temperature scanning tunneling microscopy. Applied Physics Letters, 2006, 88, 113115.	3.3	41
59	Enhancement of electron correlation in Co thin clusters grown on $\text{S}^{\wedge}\text{GaAs}(001)$. Physical Review B, 2006, 73, .	3.2	2
60	Surface states of a Pd monolayer formed on a Au(111) surface studied by angle-resolved photoemission spectroscopy. Physical Review B, 2006, 74, .	3.2	17
61	Direct Observation of Screened Coulomb Potential by Two-dimensional Electron System using Scanning Tunneling Spectroscopy. Hyomen Kagaku, 2006, 27, 695-701.	0.0	1
62	Scanning tunnelling microscope combined with synchrotron radiation for element specific analysis. Journal of Electron Spectroscopy and Related Phenomena, 2005, 144-147, 1157-1161.	1.7	9
63	Fabrication of a glass-coated metal tip for synchrotron-radiation-light-irradiated scanning tunneling microscopy. Review of Scientific Instruments, 2005, 76, 083711.	1.3	24
64	Atomically-resolved imaging by frequency-modulation atomic force microscopy using a quartz length-extension resonator. Applied Physics Letters, 2005, 87, 133114.	3.3	48
65	Development of a metal "tip cantilever for noncontact atomic force microscopy. Review of Scientific Instruments, 2005, 76, 033705.	1.3	43
66	Development of a Scanning Tunneling Microscope Combined with a Synchrotron Radiation Light Source. Hyomen Kagaku, 2005, 26, 752-756.	0.0	2
67	AFM Observation of Ge/Si(105) Surfaces. Hyomen Kagaku, 2005, 26, 486-491.	0.0	0
68	On Possibility of Real Space Observation of the Aharonov-Bohm Effect by Scanning Tunneling Microscopy. Japanese Journal of Applied Physics, 2004, 43, L206-L209.	1.5	0
69	Cu-TBPP and PTCDA molecules on insulating surfaces studied by ultra-high-vacuum non-contact AFM. Nanotechnology, 2004, 15, S91-S96.	2.6	82
70	Calculation of Noise Intensity in the Frequency Demodulation for Atomic Force Microscopy. Japanese Journal of Applied Physics, 2004, 43, L303-L305.	1.5	8
71	Imaging of all Dangling Bonds and their Potential on the Ge/Si(105) Surface by Noncontact Atomic Force Microscopy. Physical Review Letters, 2004, 93, 266102.	7.8	78
72	Development and trial measurement of synchrotron-radiation-light-illuminated scanning tunneling microscope. Review of Scientific Instruments, 2004, 75, 2149-2153.	1.3	27

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73	Development of ultralow temperature scanning tunneling microscope cooled by a dilution refrigerator. E-Journal of Surface Science and Nanotechnology, 2004, 2, 151-154.	0.4	2
74	Atom manipulation of bright and dark spots on Cu(111) surface by scanning tunneling microscope. E-Journal of Surface Science and Nanotechnology, 2004, 2, 165-168.	0.4	2
75	The Cu(1 0 0)-c(2 $\sqrt{3}$ \times 2) N structure studied by combined nc-AFM/STM. Applied Surface Science, 2003, 210, 43-48.	6.1	4
76	Dimer structure of the Si(0 0 1)2 \times 1 surface observed by low-temperature scanning tunneling microscope. Physica B: Condensed Matter, 2003, 329-333, 1644-1646.	2.7	9
77	Dimer buckling of the Si(001)2 $\sqrt{3}$ \times 1 surface below 10 K observed by low-temperature scanning tunneling microscopy. Physical Review B, 2003, 67, .	3.2	59
78	Formation Processes of the Au/Si(111)-GAMMA.(.RAD.3 * .RAD.3) R30.DEG. Surface. Shinku/Journal of the Vacuum Society of Japan, 2003, 46, 347-351.	0.2	0
79	High Resolution Atomic Force Microscopic Imaging of the Si(111) $\sqrt{7}$ \times 7 Surface: Contribution of Short-Range Force to the Images. Physical Review Letters, 2002, 89, 266105.	7.8	80
80	Modification of electron density in surface states: scanning tunnelling microscopy observation of standing waves on Pd overlayers. Nanotechnology, 2002, 13, 710-713.	2.6	1
81	Structures and electronic states of the InSb{111}A,B-(2 $\sqrt{3}$ \times 2) surfaces. Surface Science, 2002, 514, 343-349.	1.9	21
82	Potential profile around step edges of Si surface measured by nc-AFM. Applied Surface Science, 2002, 188, 386-390.	6.1	11
83	Surface Core-Level Shift as Assessed by Using the Voigt Function.. Hyomen Kagaku, 2000, 21, 426-433.	0.0	1
84	Structure and Electronic States of the $\sqrt{3}$ \times Sn(111)-(2 $\sqrt{3}$ \times 2) Surface. Journal of the Physical Society of Japan, 1998, 67, 381-384.	1.6	12
85	Chemical bonding features for faultily stacked interfaces of GaAs{111}. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 2426.	1.6	2
86	Direct imaging of the evolving Au/InSb(111) B interface. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 2324.	1.6	8
87	Structure of the InSb(111) $\sqrt{23}$ \times 23 surface and its dynamical formation processes. Physical Review B, 1998, 57, 6317-6320.	3.2	11
88	STM study of the InSb(111)A-(2 $\sqrt{3}$ \times 6) surface. Applied Surface Science, 1997, 121-122, 204-207.	6.1	7
89	Geometry and lattice formation of surface layers of Sn growing on InSb{111}A,B. Physical Review B, 1996, 54, 10358-10361.	3.2	10
90	Atomic motion induced by a scanning tunneling microscope tip on the Si(111) surface. Surface Science, 1994, 320, L101-L104.	1.9	6